REMARKS

Claim 1 has been amended to incorporate the language of claim 12.

In view of the amendment to claim 1, claim 12 has been canceled and claim 13 has been amended to depend from claim 1.

Claim 19 has been amended to refer to the correct amount of KNO_3 as disclosed in the specification.

It is submitted that these amendments do not constitute new matter, and their entry is requested.

Claims Free of the Prior Art

Applicants appreciate the Examiner's indication that claims 19-30 are free of the prior art. Since claim 20-22 are dependent on claim 1, Applicants believe that this indication should relate to claims 19 and 23-30.

Rejection Under 35 U.S.C. § 112, First Paragraph

Claims 19-30 were rejected under 35 U.S.C. §112, first paragraph for containing new matter, specifically the recitation of KNO_3 at 3.8 mg/l. As noted above, claims 20-22 are dependent on claim 1 and thus are not properly subject to this rejection. Claim 19 has been amended to specify this concentration as 3.8 g/l as set forth in the specification.

In view of the above amendment and remarks, Applicants submit that claims 19 and 23-30 comply with 35 U.S.C. §112, first paragraph. Withdrawal of this rejection is requested.

Rejection Under 35 U.S.C. § 102(b)

Claims 1 and 3-5 were rejected 35 U.S.C. § 102(b) as being anticipated by Strickland (WO 97/12512). Applicants note that in one aspect of this rejection the Examiner contends that Strickland discloses a method in which transformed callus is selected and then this callus is cultured in

suspension culture to induce embryoid formation. Applicants submit that the Examiner is incorrect in this contention, and that as a result, the rejection fails.

Specifically, Strickland teaches the culturing of selected transformed callus on a solid medium to induce the formation of embryogenic callus. See, e.g., page 12, lines 25-27 and Experiments 2-4. The embryogenic callus can then be maintained for **extended periods of time** by culturing either on solid medium or in suspension culture. See, e.g., page 18, lines 4–8, emphasis added. There is no disclosure in Strickland that the selected, transformed callus (which is not embryogenic callus) is cultured in suspension culture first to induce formation of embryogenic calli which then is cultured to induce formation of embryoids. Furthermore, there is no disclosure that this suspension culturing is done for less than about 20 days as set forth in amended claim 1. Since Strickland does not teach the specific steps set forth in claim 1, it cannot anticipate the claimed subject matter.

In view of the above amendments and remarks, Applicants submit that Strickland does not anticipate the claimed subject matter. Withdrawal of this rejection is requested.

Rejection Under 35 U.S.C. § 103(a)

Claims 1-6, 12-14 and 18 were rejected under 35 U.S.C. § 103(a) as being obvious over Strickland. Applicants submit that the Examiner is in error in this rejection.

Specifically, as described above, Strickland does not describe culturing the selected, transformed callus in suspension culture first to induce formation of embryogenic calli which then is cultured to induce formation of embryoids. In addition, there is no disclosure that this suspension culturing is done for less than about 20 days as set forth in amended claim 1. Furthermore, there is no suggestion in Strickland to perform the steps as set forth in claim 1. Since Strickland does not teach or suggest the specific steps set forth in claim 1, it cannot render obvious the claimed subject matter.

In view of the above amendments and remarks, Applicants submit that Strickland does not render obvious the claimed subject matter. Withdrawal of this rejection is requested.

Rejection Under 35 U.S.C. § 103(a)

Claims 7-11 were rejected under 35 U.S.C. § 103(a) as being obvious over Strickland in view of Finer (Plant Cell Rept 7:399-402, 1988). Applicants submit that the Examiner is in error in this rejection.

Specifically, as described above, Strickland does not describe culturing the selected, transformed callus in suspension culture first to induce formation of embryogenic calli which then is cultured to induce formation of embryoids. In addition, there is no disclosure that this suspension culturing is done for less than about 20 days as set forth in amended claim 1. Furthermore, there is no suggestion in Strickland to perform the steps as set forth in claim 1.

Finer et al. does not cure this deficiency of Strickland. Specifically, although Finer describes culturing callus tissue in suspension culture to produce embryogenic tissue, this culturing was for an extended period with clumps of embryogenic tissue first seen 4-8 weeks following initiation of suspension culture. See, page 399, right column. In addition, the suspension culture of Finer included plant hormones. See, page 399, right column. There is no disclosure in Finer that a suspension culture could be done for a period of less than about 20 days or in the absence of plant hormones to induce formation of embryogenic callus. Furthermore, there is no suggestion in Finer to perform the steps as set forth in claim 1. Thus, there is no suggestion in the combination of Strickland and Finer to carry out the specific steps set forth in the claims, and therefore Strickland and Finer et al. cannot render obvious the claimed subject matter.

In view of the above amendments and remarks, Applicants submit that Strickland and Finer do not render obvious the claimed subject matter. Withdrawal of this rejection is requested.

Rejection Under 35 U.S.C. § 103(a)

Claims 1-14 and 20 were also apparently rejected under 35 U.S.C. §103(a) as being unpatentable over Rangan et al. (US 5,859,321) in view of Strickland in paragraph 4 of the office Action, although no specifics were provided concerning this rejection. Applicants submit that the Examiner is in error in this rejection.

Specifically, the disclosure in Rangan et al. concerning suspension culture does not describe culturing selected transformed callus in a suspension culture to induce formation of embryogenic callus. Instead, Rangan et al. discloses culturing embryogenic callus in culture for extended periods of time (i.e., several weeks) to produce additional embryogenic callus. See, e.g., column 9, lines 40 *et seq*. Thus, Rangan et al. does not describe culturing selected, transformed, non-embryogenic callus in a suspension culture to induce formation of embryogenic calli. Nor does Rangan et al. disclose culturing selected, transformed callus in suspension culture for a period of less than about 20 days. In addition, the suspension culture of Rangan et al. included plant hormones. See, e.g., column 9, lines 40 *et seq*. Furthermore, there is no suggestion in Rangan et al. to perform the steps as set forth in claim 1.

As described above, Strickland also does not describe culturing the selected, transformed callus in suspension culture first to induce formation of embryogenic calli which then is cultured to induce formation of embryoids. In addition, there is no disclosure that this suspension culturing is done for less than about 20 days as set forth in amended claim 1. Furthermore, there is no suggestion in Strickland to perform the steps as set forth in claim 1. Consequently, Strickland does not cure the deficiency of Rangan et al. Thus, there is no suggestion in the combination of Rangan et al. and Strickland to carry out the specific steps set forth in the claims, and therefore Rangan et al. and Strickland cannot render obvious the claimed subject matter.

In view of the above amendments and remarks, Applicants submit that Rangan et al. and Strickland do not render obvious the claimed subject matter. Withdrawal of this rejection is requested.

Conclusions

In view of the above amendments and remarks, it is believed that the claims satisfy the requirements of the patent statutes and reconsideration of the instant application and early notice of allowance are requested. The Examiner is invited to telephone the undersigned if it is deemed to expedite allowance of the application.

Respectfully submitted,
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